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SEARCH REQUEST FORM

Scientific and Technical Information Center

7/23/02

Requester's Full Name: David Lukton Examiner #: 71263 Date:
Art Unit: 1653 Phone Number 308-3213 Serial Number: 09/590592
Mail Box and Bldg/Room Location: _____ Results Format Preferred (circle): PAPER DISK E-MAIL
Mailbox: 9B01; Exv Rm: 9B05
If more than one search is submitted, please prioritize searches in order of need.

****

Title of Invention: Valency Platform molecules comprising aminooxy groups

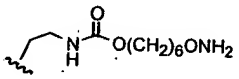
Applicants: JONES, DAVID S.; TON-NU, HUONG-THU; XIE, FANG; TOA, ANPING; XU, TONG; HAMMAKER, JEFFREY ROBERT;

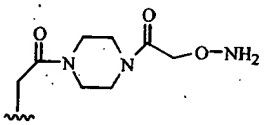
Earliest Priority Date: 6/8/99

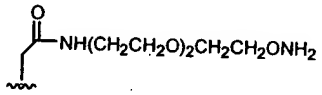
* * * * *

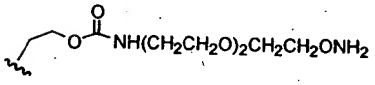
Applicants are claiming compounds which contain "aminooxy groups" (i.e., the group $-O-NH_2$). Specifically, the compound must contain at least three occurrences of at least one of the following moieties. Examples of specific compounds are on the attached sheet.

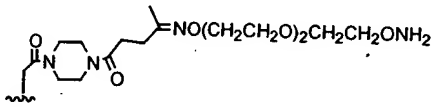
$-NHCO-(CH_2)_5-O-NH_2$

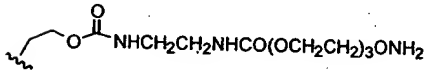


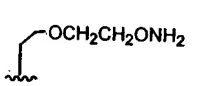


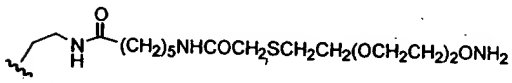


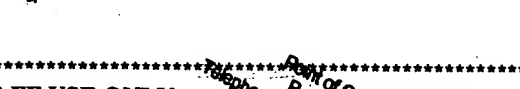












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STAFF USE ONLY

Point of Contact
P. Shepard
Telephone number: (703) 308-4212

Searcher: _____
Searcher Phone #: _____
Searcher Location: _____
Date Searcher Picked Up: _____
Date Completed: 8/2/02
Searcher Prep & Review Time: _____
Clerical Prep Time: _____
Online Time: _____

Type of Search
Nucleic Sequence (#) _____
AA Sequence (#) _____
Structure (#) _____
Bibliographic _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable
STN _____
Dialog _____
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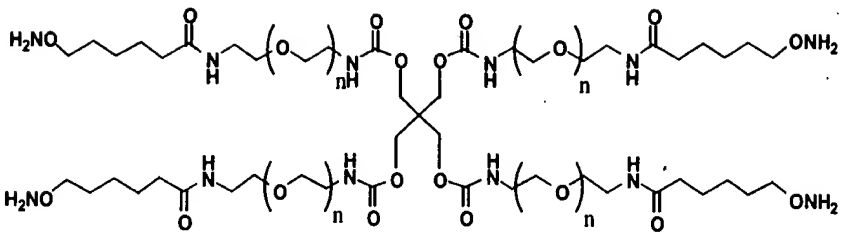
PTO-1590 (8-01)

09/590 592



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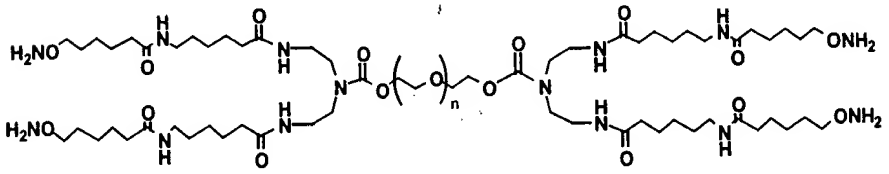

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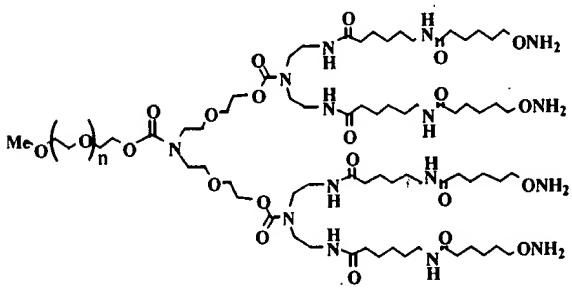

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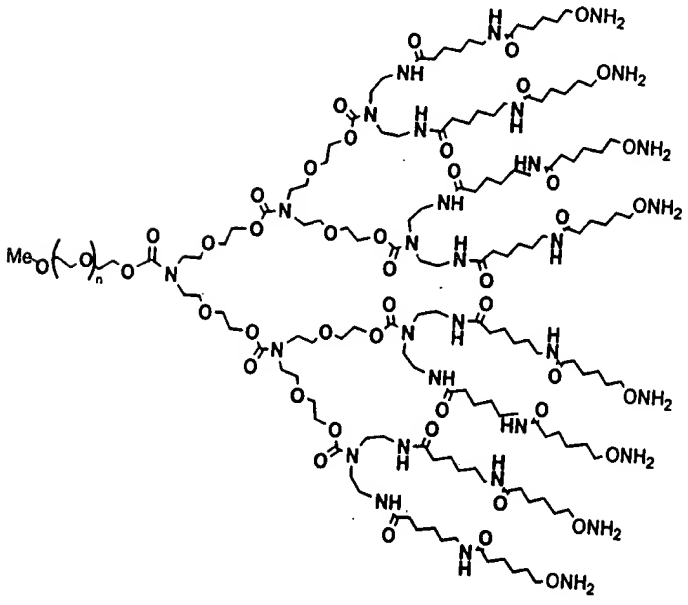

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FILE LAST UPDATED: 23 Jul 2002  (20020723/ED)

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CAS roles have been modified effective December 16, 2001. Please
check your SDI profiles to see if they need to be revised. For
information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

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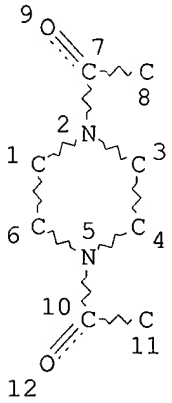


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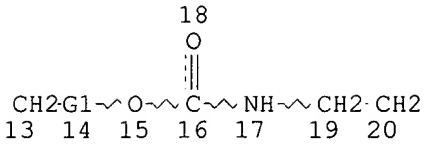

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STEREO ATTRIBUTES: NONE
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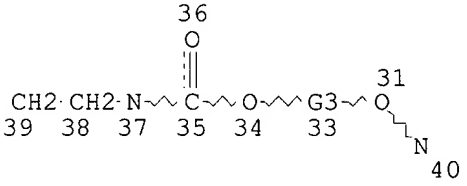

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STEREO ATTRIBUTES: NONE
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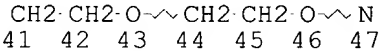

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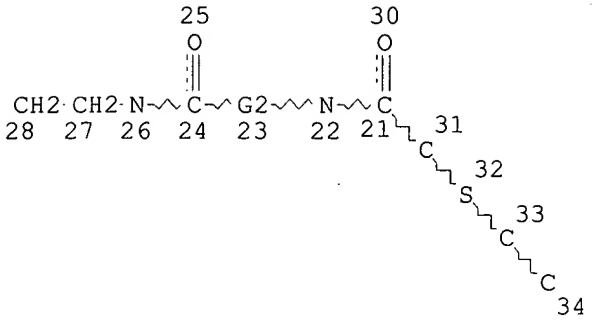

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
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)

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=>

=> d ibib abs hitrn l15 1-5

L15 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:881116 HCAPLUS
DOCUMENT NUMBER: 134:56426
TITLE: Preparation of molecules containing aminooxy groups as valency platform molecules for preparation of bioconjugates.
INVENTOR(S): Jones, David S.; Ton-nu, Huong-thu; Xie, Fang; Tao, Anping; Xu, Tong; Hammaker, Jeffrey Robert
PATENT ASSIGNEE(S): La Jolla Pharmaceutical Co., USA

SOURCE: PCT Int. Appl., 113 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000075105	A1	20001214	WO 2000-US15968	20000608
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1183230	A1	20020306	EP 2000-939762	20000608
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
NO 2001006006	A	20020122	NO 2001-6006	20011207

PRIORITY APPLN. INFO.: US 1999-138260P P 19990608
WO 2000-US15968 W 20000608

AB Oxyalkylene mols. contg. .gtoreq.3 aminooxy groups were prepd. Thus, MeO(CH2CH2O)nCH2CH2O2CN[CH2CH2OCH2CH2O2CN[CH2CH2NHCO(CH2)5NHCO(CH2)5ONH2]2]2 (n = approx. 503) (prepn. outlined) was stirred with Domain 1 polypeptide .beta.2GPI-glyoxylic acid reaction product to give the tetraadduct, which at 0.17 nmol/rat gave 61% suppression of anti-Domain 1 antibody in immunized rats.

IT **313390-05-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of mols. contg. **aminooxy** groups as valency platform mols. for prepn. of bioconjugates)

IT **252378-62-4P 313390-22-6P**
RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of mols. contg. **aminooxy** groups as valency platform mols. for prepn. of bioconjugates)

IT **154231-82-0 313391-08-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of mols. contg. **aminooxy** groups as valency platform mols. for prepn. of bioconjugates)

IT **98627-71-5P 252378-61-3P 252378-66-8P 252378-67-9P 252378-68-0P 252378-69-1P 252378-70-4P 252378-71-5P 252378-78-2P 252378-85-1P 252378-95-3P 313390-25-9P 313390-54-4P 313390-68-0P 313390-71-5P 313390-74-8P 313390-95-3P 313390-97-5P 313391-07-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of mols. contg. **aminooxy** groups as valency platform mols. for prepn. of bioconjugates)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:618668 HCAPLUS
DOCUMENT NUMBER: 133:290709
TITLE: Antimalarial activities of aminooxy compounds
AUTHOR(S): Berger, Bradley J.
CORPORATE SOURCE: Department of Biochemistry, University of Dundee, Dundee, DD1 5EH, UK
SOURCE: Antimicrobial Agents and Chemotherapy (2000), 44(9), 2540-2542
CODEN: AMACCQ; ISSN: 0066-4804
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Several aminooxy compds. have been examd. for their ability to inhibit the growth of the malaria parasite Plasmodium falciparum in vitro. Eight of these compds. were found to have 50% inhibitory concns. less than 10 .mu.M, with the best drugs being canaline (the aminooxy analog of ornithine) and CGP51905A at 297.+-.23.6 nM and 242.+-.18.8 nM, resp. Canaline was also assayed in combination with the ornithine decarboxylase inhibitor difluoromethylornithine, and the drugs were synergistic in antimalarial activity.
IT **98627-71-5**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antimalarial activities of **aminooxy** compds.)
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:177110 HCAPLUS
DOCUMENT NUMBER: 132:308053
TITLE: A convenient synthesis of N-(tert-butyloxycarbonyl)aminooxy ethers
AUTHOR(S): Jones, David S.; Hammaker, Jeffrey R.; Tedder, Martina E.
CORPORATE SOURCE: La Jolla Pharmaceutical Company, San Diego, CA, 92121, USA
SOURCE: Tetrahedron Letters (2000), 41(10), 1531-1533
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 132:308053
AB Alkyl iodides and alkyl bromides can be conveniently converted to N-protected O-alkyl aminooxy compds. by treatment with N-(tert-butyloxycarbonyl)hydroxylamine and DBU. The reaction is tolerant of hydroxyl groups and carboxylate esters, which can be further derivatized and thus serve as precursors for a no. of functionalized O-alkyl aminooxy ethers. The reaction can be accomplished neat or with methylene chloride as solvent.
IT **252378-66-8P 252378-95-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of N-(tert-butoxycarbonyl)**aminooxy** ethers)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:539031 HCAPLUS
DOCUMENT NUMBER: 132:122850
TITLE: Aminooxy Functionalized Oligonucleotides: Preparation, On-Support Derivatization, and Postsynthetic Attachment to Polymer Support
AUTHOR(S): Salo, Harri; Virta, Pasi; Hakala, Harri; Prakash, Thazha P.; Kawasaki, Andrei M.; Manoharan, Muthiah; Loennberg, Harri
CORPORATE SOURCE: Department of Chemistry, University of Turku, Turku, FIN-20014, Finland
SOURCE: Bioconjugate Chemistry (1999), 10(5), 815-823
CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 132:122850

AB Three novel phosphoramidites, each bearing a phthaloyl-protected aminooxy tail, were prepd. and applied in automated oligonucleotide synthesis. After chain assembly, the phthaloyl protection was removed with hydrazinium acetate. Normal succinyl linker turned to be stable under these conditions, and hence the support-bound oligonucleotide could be converted to a pyrene oxime conjugates by reacting with pyrene carbaldehyde or cis-retinal. Std. ammonolytic deprotection then released the deprotected conjugate in soln. Alternatively, the crude aminooxy-tethered oligonucleotide was immobilized to microscopic polymer particles by reacting the aminooxy function with the particle-bound aldehyde or epoxide groups. These immobilized oligonucleotides were shown to serve properly as probes in a mixed phase hybridization assay.

IT **249617-96-7P 249617-97-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(immobilized **aminooxy** functionalized oligonucleotides in prepn. of DNA duplexes)

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:580840 HCAPLUS
DOCUMENT NUMBER: 119:180840
TITLE: 1,12-diaza-2,5,8,11,15-pentaoxacycloheptadecane and a method of its synthesis
INVENTOR(S): Shtamburg, Vasilij G.; Skobelev, Oleg L.; Pleshkova, Aleksandra P.; Kostyanovskij, Remir G.; Dmitrenko, Aleksandr A.; Seleznev, Yurij S.
PATENT ASSIGNEE(S): Dn tsentr nt tvorchestva "impuls", USSR
SOURCE: U.S.S.R. From: Izobreteniya 1992, (14), 99.
CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1726475	A1	19920415	SU 1990-4784128	19900118

GI For diagram(s), see printed CA Issue.

AB A method for prepn. of the title compd. (I) entails heterocyclization of NH(OCH2CH2)3ONH with O(CH2CH2OTs) (Ts = tosyl) in MeCN in presence of Na2CO3.

IT **98627-71-5**, 1,8-Bis(**aminooxy**)-3,6-dioxaoctane
RL: RCT (Reactant)
(heterocyclization of, with bis(tosyloxy)oxapentane)

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=> d stat que l17
L6                STR
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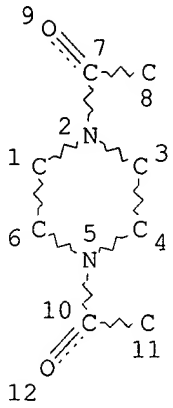

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DEFAULT ECLEVEL IS LIMITED

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NUMBER OF NODES IS  12

STEREO ATTRIBUTES: NONE
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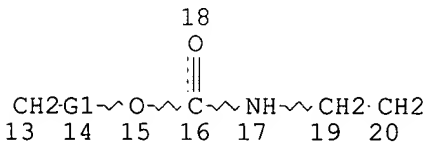

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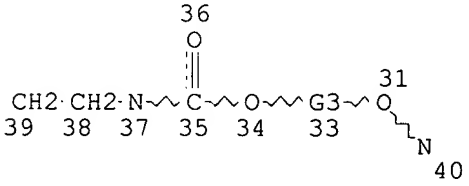

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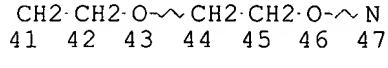

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STEREO ATTRIBUTES: NONE
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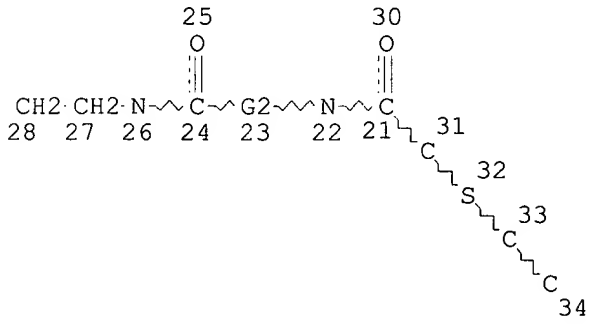

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DEFAULT ECLEVEL IS LIMITED

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STEREO ATTRIBUTES: NONE
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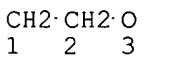
L12 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 3

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STEREO ATTRIBUTES: NONE
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L14        8270 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13
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L16           6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L14(L)(VALENC? OR ?PLATFORM?)

L17           5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L16 NOT L15


=> d ibib abs hitrn l17 1-5

L17  ANSWER 1 OF 5  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         2001:903935  HCAPLUS
DOCUMENT NUMBER:          136:54229
TITLE:                    Multivalent platform molecules comprising high
                          molecular weight polyethylene oxide
INVENTOR(S):              Jones, David S.
PATENT ASSIGNEE(S):       La Jolla Pharmaceutical Company, USA
SOURCE:                   PCT Int. Appl., 78 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
     WO 2001093914      A2   20011213       WO 2001-US18446  20010607
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:                    US 2000-210439P  P  20000608
AB   Valency platform mols. comprising high mol. wt. polyethylene oxide groups
     are provided, as well as conjugates with biol. active mols., and methods
     for their prepn.  The high mol. wt. polyethylene oxide group has mol. wt.
     at least 40,000 Daltons.  In one embodiment, a compn. comprising the
     valency platform mols. is provided, wherein the mols. have a
     polydispersity less than about 1.2.  Conjugates of the valency platform
     mol. and a biol. active mol., such as a saccharide, poly(saccharide),
     amino acid, poly(amino acid), nucleic acid or lipid also are provided.
     Also provided are pharmaceutically acceptable compns. comprising the
     conjugates disclosed herein and a pharmaceutically acceptable carrier, as
     well as methods of making and using the conjugates and compns.
IT   380496-02-6DP, biosequence conjugate derivs. 380496-03-7DP
     , biosequence conjugate derivs. 380496-08-2DP, biosequence
     conjugate derivs.
     RL: BSU (Biological study, unclassified); BUU (Biological use,
     unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP
     (Preparation); USES (Uses)
        (prepn. of multivalent platform mols. comprising high mol.
        wt. polyethylene oxide and conjugates with biol. active mols.)
IT   380496-02-6P 380496-03-7P
```

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); IMF (Industrial manufacture); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of multivalent **platform** mols. comprising high mol. wt. polyethylene oxide and conjugates with biol. active mols.)

IT **380496-08-2P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of multivalent **platform** mols. comprising high mol. wt. polyethylene oxide and conjugates with biol. active mols.)

IT **313390-95-3P 313390-97-5P 313391-07-0P**
380496-07-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of multivalent **platform** mols. comprising high mol. wt. polyethylene oxide and conjugates with biol. active mols.)

L17 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:577842 HCAPLUS
DOCUMENT NUMBER: 125:219609
TITLE: Chemically-defined non-polymeric valency platform molecules and conjugates thereof
INVENTOR(S): Coutts, Stephen M.; Jones, David S.; Livingston, Douglas A.; Yu, Lin
PATENT ASSIGNEE(S): La Jolla Pharmaceutical Company, USA
SOURCE: U.S., 59 pp. Cont.-in-part of U.S. 5,276,013.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5552391	A	19960903	US 1993-152506	19931115
US 5162515	A	19921110	US 1990-494118	19900313
JP 05505520	T2	19930819	JP 1991-503584	19910115
JP 2001354569	A2	20011225	JP 2001-106534	19910115
US 5268454	A	19931207	US 1991-652648	19910208
AU 9214118	A1	19920907	AU 1992-14118	19920204
AU 646157	B2	19940210		
JP 05508421	T2	19931125	JP 1992-505775	19920204
JP 2544873	B2	19961016		
NO 9202781	A	19920714	NO 1992-2781	19920714
FI 9203241	A	19920715	FI 1992-3241	19920715
US 5276013	A	19940104	US 1992-914869	19920715
US 6060056	A	20000509	US 1993-118055	19930908
JP 07126186	A2	19950516	JP 1993-298747	19931129
JP 2002087991	A2	20020327	JP 2001-197540	19931129
EP 642798	A2	19950315	EP 1993-309720	19931203
EP 642798	A3	19980916		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
CA 2171434	AA	19950316	CA 1994-2171434	19940908
WO 9507073	A1	19950316	WO 1994-US10031	19940908
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RW: KE, MW, SD, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC,				

NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9477209	A1	19950327	AU 1994-77209	19940908	
AU 677710	B2	19970501			
EP 722318	A1	19960724	EP 1994-928016	19940908	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
CN 1134109	A	19961023	CN 1994-193993	19940908	
JP 09500389	T2	19970114	JP 1994-508766	19940908	
JP 2002085062	A2	20020326	JP 2001-214569	19940908	
US 5606047	A	19970225	US 1995-453254	19950530	
US 5633395	A	19970527	US 1995-453452	19950530	
NO 9600952	A	19960502	NO 1996-952	19960307	
FI 9601100	A	19960508	FI 1996-1100	19960308	
US 2002082400	A1	20020627	US 2000-753350	20001229	

PRIORITY APPLN. INFO.:

US 1990-466138	B2	19900116
US 1990-494118	A2	19900313
US 1991-652648	A2	19910208
US 1992-914869	A2	19920715
US 1993-118055	A2	19930908
JP 1991-503584	A3	19910115
WO 1991-US293	W	19910115
WO 1992-US975	A	19920204
US 1993-142598	A	19931022
US 1993-152506	A	19931115
EP 1993-309288	A	19931122
JP 1993-298747	A3	19931129
JP 1995-508766	A3	19940908
WO 1994-US10031	W	19940908
US 1995-453254	A3	19950530
US 1996-769041	A1	19961218

AB Chem.-defined, non-polymeric valency platform mols. and conjugates comprising chem.-defined valency platform mols. and biol. or chem. mols. including polynucleotide duplexes of at least 20 base pairs that have significant binding activity for human lupus anti-dsDNA autoantibodies. The polynucleotide duplex-contg. conjugates are useful as toleragen for treating human autoimmune disease or systemic lupus erythematosus. In example, chem.-defined valency platform mols. were synthesized, conjugated with polynucleotide (PN) and hemagglutinin or sheep red blood cell, and used as toleragen to reduce PN-specific antibody-producing cells. Similarly, conjugates of the platform mols. and melittin peptides were prepd. for tolerizing mice to melittin.

IT **181469-52-3P**
RL: MOA (Modifier or additive use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(chem.-defined non-polymeric **valency platform** mols. and conjugates with polynucleotide or melittin as toleragen for autoimmune disease or systemic lupus erythematosus or bee venom)

IT **154231-82-0**
RL: RCT (Reactant)
(chem.-defined non-polymeric **valency platform** mols. and conjugates with polynucleotide or melittin as toleragen for autoimmune disease or systemic lupus erythematosus or bee venom)

IT **154231-81-9P 163778-63-0P 169744-02-9P 169744-03-0P 169744-04-1P 169744-05-2P 169744-06-3P 169744-11-0P 169744-13-2P 169744-15-4P 169744-18-7P 181468-40-6P 181469-02-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(chem.-defined non-polymeric **valency platform** mols.

and conjugates with polynucleotide or melittin as toleragen for autoimmune disease or systemic lupus erythematosus or bee venom)

L17 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:892826 HCAPLUS
DOCUMENT NUMBER: 124:290272
TITLE: Preparation of chemically-defined non-polymeric valency platform molecules and conjugates thereof.
INVENTOR(S): Coutts, Stephen; Jones, David S.; Livingston, Douglas Alan; Yu, Lin
PATENT ASSIGNEE(S): La Jolla Pharmaceutical Co., Can.
SOURCE: Eur. Pat. Appl., 76 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 642798	A2	19950315	EP 1993-309720	19931203
EP 642798	A3	19980916		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
US 6060056	A	20000509	US 1993-118055	19930908
US 5552391	A	19960903	US 1993-152506	19931115

PRIORITY APPLN. INFO.:

US 1993-118055	A	19930908
US 1993-142598	A	19931022
US 1993-152506	A	19931115
EP 1993-309288	A	19931122
US 1990-466138	B2	19900116
US 1990-494118	A2	19900313
US 1991-652648	A2	19910208
US 1992-914869	A2	19920715

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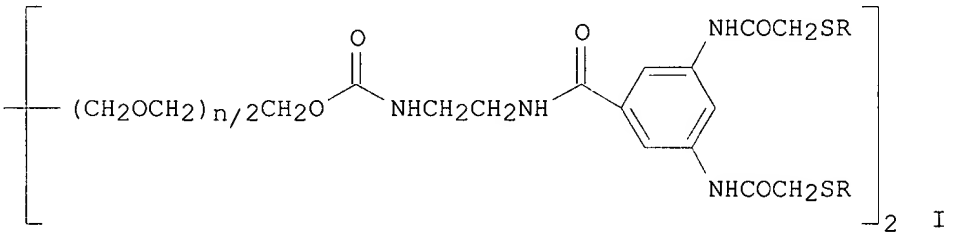

I

AB Conjugates comprising biol. or chem. mols., including polynucleotide duplexes of at least 20 base pairs that have significant binding activity for human lupus anti-dsDNA autoantibodies, reacted with valency platforms G1(T1)n, G2[L2J2Z2(pT2)]m [G1, G2 = null, (branched) chain contg. 1-2000 atoms selected from C, N, O, Si, P, S; T1, T2 = NHR, CONHNHR, NHNHR, CO2H, CO2R1, COX, SO2X, SH, OH, etc.; R = H, alkyl, cycloalkyl, aralkyl; R1 = N-succinimidyl, p-nitrophenyl, pentafluorophenyl, etc.; X = halo, other leaving group; L2 = null, O, NR, S; J2 = null, CO, CS; Z2 = radical contg. 1-200 atoms selected from C, H, N, O, Si, P, S, and contg. attachment sites for functional groups; n, m = 1-32; p = 1-8; with provisos], were prepd. Thus, title conjugate (I; R = H-Trp-Ile-Lys-Arg-Lys-Arg-Gln-Gln-

Lys-Cys-Gly-OH, bound through a cysteine S atom; n = approx. 74) (prepn. given) at 1000 .mu.g/mouse in mice primed and boosted with the parent protein melittin gave an 86.8% redn. in peptide specific plaque forming cells.

IT **169744-34-7P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of chem.-defined non-polymeric **valency platform** mols. and conjugates thereof)

IT **169744-32-5**
RL: RCT (Reactant)
(prepn. of chem.-defined non-polymeric **valency platform** mols. and conjugates thereof)

IT **163778-63-0P 169744-01-8P 169744-02-9P 169744-03-0P 169744-04-1P 169744-05-2P 169744-06-3P 169744-11-0P 169744-13-2P 169744-15-4P 169744-16-5P 169744-18-7P 169744-23-4P 169744-29-0P 169744-30-3P 169744-31-4P 169744-33-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of chem.-defined non-polymeric **valency platform** mols. and conjugates thereof)

L17 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:261341 HCAPLUS
DOCUMENT NUMBER: 120:261341
TITLE: Conjugates of biologically stable polyfunctional molecules and polynucleotides for treating systemic lupus erythematosus (SLE)
INVENTOR(S): Conrad, Michael J.; Coutts, Stephen
PATENT ASSIGNEE(S): La Jolla Pharmaceutical Co., USA
SOURCE: U.S., 21 pp. Cont.-in-part of U.S. 5,162,515.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5276013	A	19940104	US 1992-914869	19920715
US 5162515	A	19921110	US 1990-494118	19900313
CA 2034197	AA	19910717	CA 1991-2034197	19910115
WO 9110426	A1	19910725	WO 1991-US293	19910115
W: FI, JP, NO				
JP 05505520	T2	19930819	JP 1991-503584	19910115
AT 139448	E	19960715	AT 1991-300262	19910115
ES 2090233	T3	19961016	ES 1991-300262	19910115
JP 2001354569	A2	20011225	JP 2001-106534	19910115
AU 9169418	A1	19910718	AU 1991-69418	19910116
AU 640730	B2	19930902		
NO 9202781	A	19920714	NO 1992-2781	19920714
FI 9203241	A	19920715	FI 1992-3241	19920715
US 5552391	A	19960903	US 1993-152506	19931115
US 5606047	A	19970225	US 1995-453254	19950530
US 5633395	A	19970527	US 1995-453452	19950530
US 2002082400	A1	20020627	US 2000-753350	20001229

PRIORITY APPLN. INFO.: US 1990-466138 B2 19900116

US 1990-494118	A2	19900313
JP 1991-503584	A3	19910115
WO 1991-US293	W	19910115
US 1991-652648	A2	19910208
US 1992-914869	A2	19920715
US 1993-118055	A2	19930908
US 1993-152506	A1	19931115
US 1995-453254	A3	19950530
US 1996-769041	A1	19961218

AB Chem. defined conjugates are disclosed which consist of biol. stable valency platform mols., e.g. copolymers of D-glutamic acid and D-lysine or PEG, and polynucleotide duplexes of .gtoreq.20 base pairs that have significant binding activity for human lupus anti-dsDNA autoantibodies. The duplexes are preferably homogeneous in length structure and are bound to the valency platform mol. via reaction between a functional group located at or proximate a terminus of each duplex and functional groups on the valency platform mol. The conjugates are tolerogens for human SLE. Thus a conjugate of D-glutamic acid-D-lysine copolymer with (AC)30:(TG)30 was prepd. and tested as a tolerogen in a murine model for human SLE.

IT **154231-81-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, in duplex polynucleotide-polymeric **valency platform** mol. conjugate prepn.)

IT **154231-82-0**
RL: RCT (Reactant)
(reaction of, in duplex polynucleotide-polymeric **valency platform** mol. conjugate prepn.)

L17 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:439341 HCAPLUS
DOCUMENT NUMBER: 103:39341
TITLE: Structure and impact sensitivity relation in organic explosives
AUTHOR(S): Sundararajan, R.; Jain, Sampat R.
CORPORATE SOURCE: Dep. Aerosp. Eng., Indian Inst. Sci., Bangalore, 560 012, India
SOURCE: Indian J. Technol. (1983), 21(11), 474-7
CODEN: IJOTA8; ISSN: 0019-5669
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The impact sensitivity and heat of explosion of an org. explosive are dependent upon its chem. structure. A combination of valences of the elements present in the explosive in the form [(R - P)/RP]MW, where R and P are resp. the total reducing and oxidizing valences and MW is the mol. wt., is related to impact sensitivity expressed as the min. impact height needed for causing explosion. A plausible explanation for the existence of such a relation is provided in terms of the heat of explosion, which is argued to play an important role in detg. the impact sensitivity.

IT **693-21-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(detonation impact sensitivity of, heat of explosion and reducing and oxidizing **valence** in relation to)

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E8 THROUGH E33 ASSIGNED

E34 THROUGH E65 ASSIGNED

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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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DICTIONARY FILE UPDATES: 23 JUL 2002 HIGHEST RN 439897-97-9

TSCA INFORMATION NOW CURRENT THROUGH January 7, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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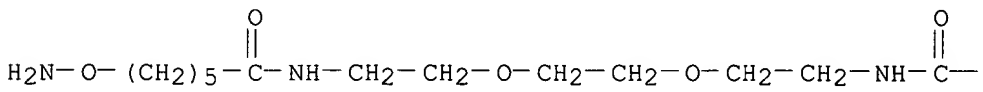
L20 ANSWER 1 OF 54 REGISTRY COPYRIGHT 2002 ACS
RN **380496-08-2** REGISTRY
CN Poly(oxy-1,2-ethanediyl), .alpha.-[17-(aminooxy)-1,12-dioxo-5,8-dioxa-2,11-diazaheptadec-1-yl]-.omega.-[[17-(aminooxy)-1,12-dioxo-5,8-dioxa-2,11-diazaheptadec-1-yl]oxy]- (9CI) (CA INDEX NAME)
MF (C2 H4 O)n C26 H52 N6 O11
CI PMS
PCT Polyether
SR CA
LC STN Files: CA, CAPLUS

PAGE 1-A



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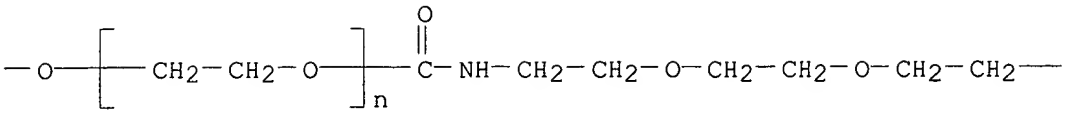

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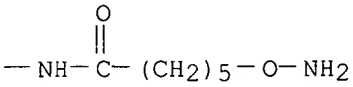
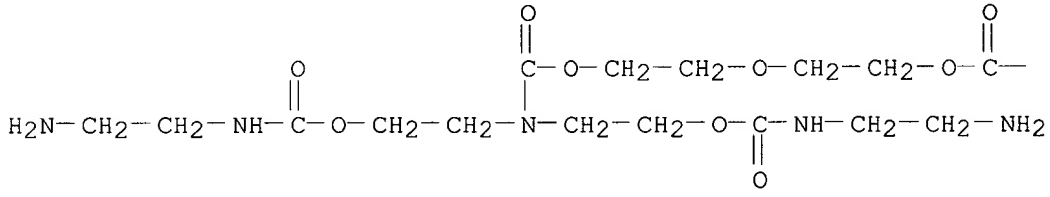


1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:54229

L20 ANSWER 5 OF 54 REGISTRY COPYRIGHT 2002 ACS
RN **313391-08-1** REGISTRY
CN Carbamic acid, bis[2-[[[(2-aminoethyl)amino]carbonyl]oxy]ethyl]-, oxydi-2,1-ethanediyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C26 H52 N10 O13
SR CA
LC STN Files: CA, CAPLUS

PAGE 1-A



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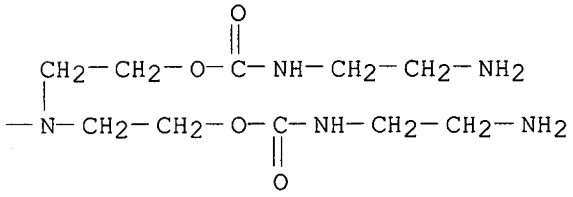


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

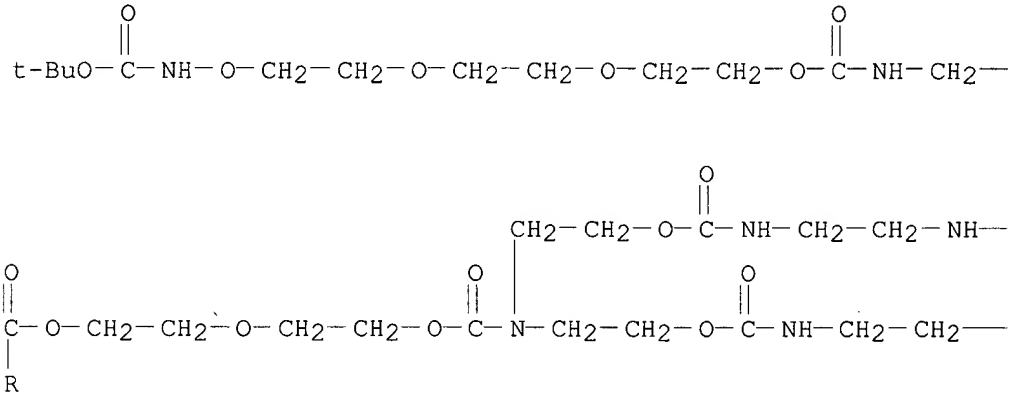
1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:56426

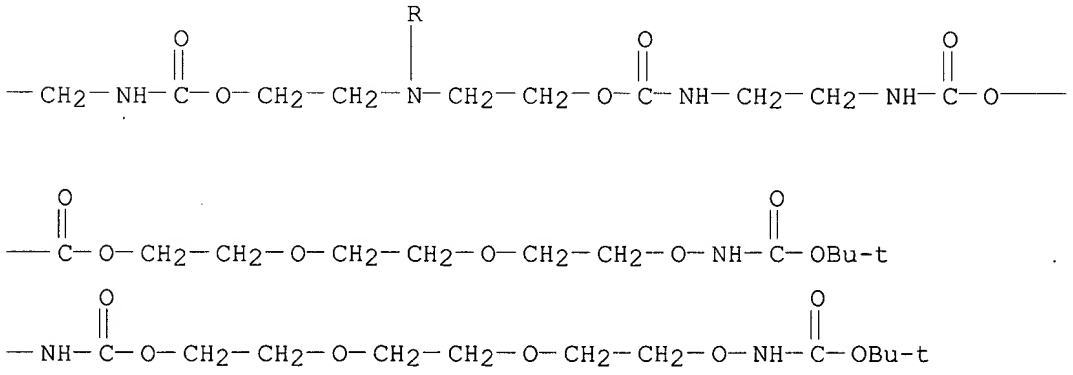
L20 ANSWER 10 OF 54 REGISTRY COPYRIGHT 2002 ACS
RN **313390-71-5** REGISTRY
CN 3,6,9,12,19,24,27,30,35,42,45,48,51-Tridecaoxa-2,14,17,22,32,37,40,52-octaazatripentacontanedioic acid, 22,32-bis(23,23-dimethyl-4,9,21-trioxo-3,10,13,16,19,22-hexaoxa-5,8,20-triazatetracos-1-yl)-13,18,23,31,36,41-hexaoxo-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C74 H136 N14 O41
SR CA
LC STN Files: CA, CAPLUS

WO 2000/075105

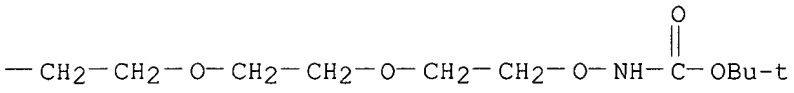
PAGE 1-A



PAGE 1-B



PAGE 1-C



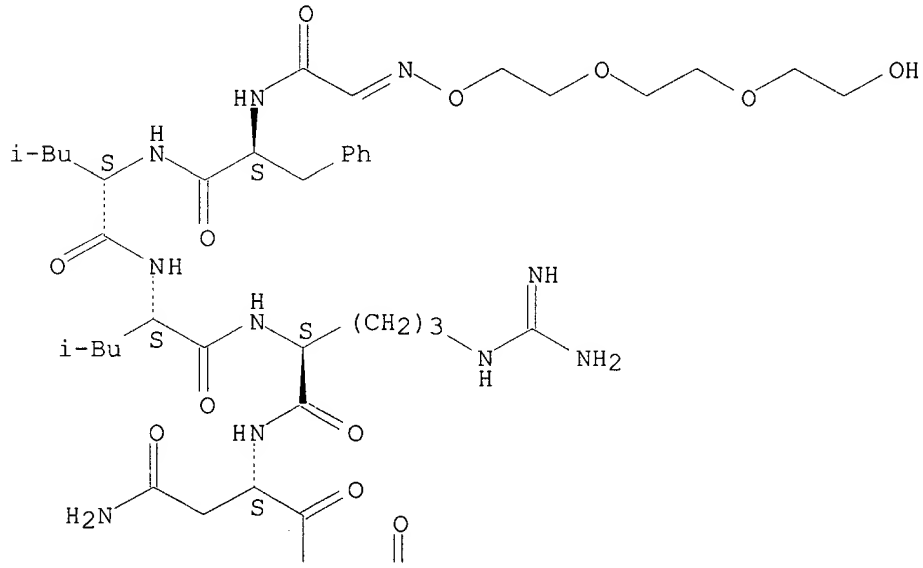
1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:56426

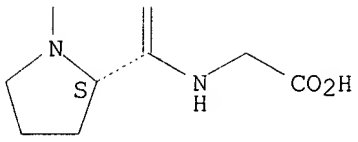
L20 ANSWER 15 OF 54 REGISTRY COPYRIGHT 2002 ACS
RN **313390-05-5** REGISTRY
CN Glycine, N-(12-hydroxy-1-oxo-4,7,10-trioxa-3-azadodec-2-en-1-yl)-L-phenylalanyl-L-leucyl-L-leucyl-L-arginyl-L-asparaginyl-L-prolyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C46 H74 N12 O14
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



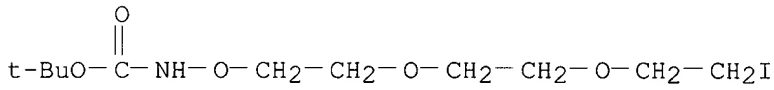
PAGE 2-A



1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:56426

L20 ANSWER 20 OF 54 REGISTRY COPYRIGHT 2002 ACS
RN **252378-70-4** REGISTRY
CN 3,6,9-Trioxa-2-azaundecanoic acid, 11-iodo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C11 H22 I N O5
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1967 TO DATE)
3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:84354

REFERENCE 2: 134:56426

REFERENCE 3: 132:49017

WO 99/69595

L20 ANSWER 25 OF 54 REGISTRY COPYRIGHT 2002 ACS
RN **252378-62-4** REGISTRY
CN Carbamic acid, bis[2-[4-[(aminooxy)acetyl]-1-piperazinyl]-2-oxoethyl]-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester, tetrahydrochloride (9CI) (CA INDEX NAME)
MF C40 H68 N14 O18 . 4 Cl H
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

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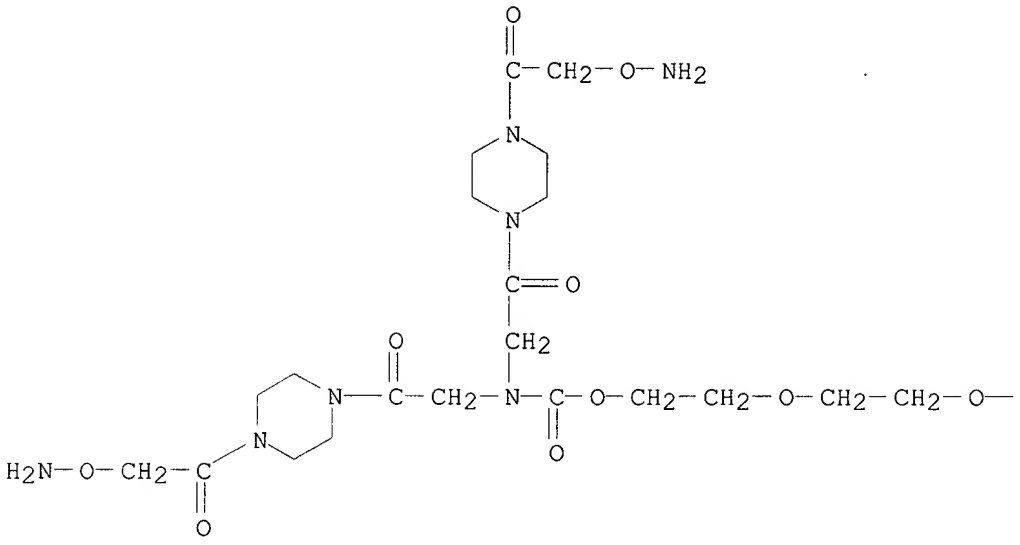

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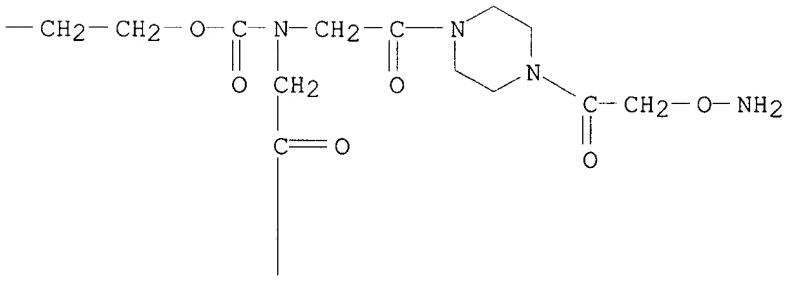

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●4 HCl

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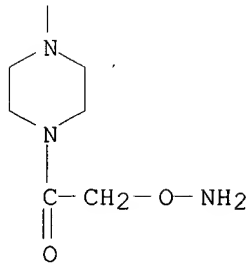


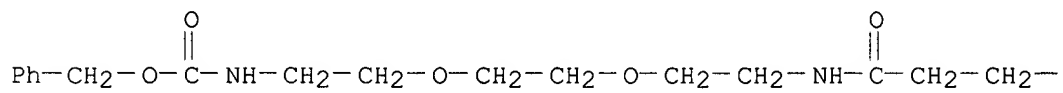
2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:56426

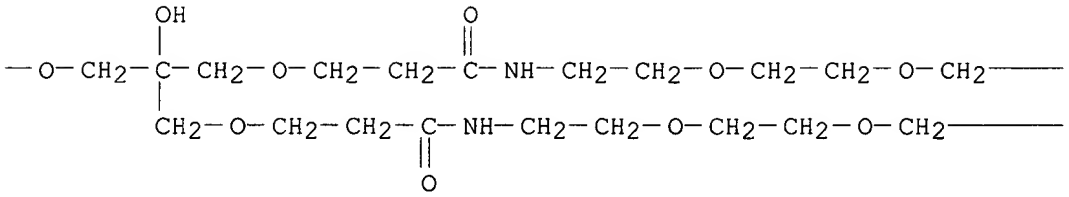
REFERENCE 2: 132:49017

L20 ANSWER 30 OF 54 REGISTRY COPYRIGHT 2002 ACS
RN **181469-02-3** REGISTRY
CN 5,8,15,19,26,29-Hexaoxa-2,11,23,32-tetraazatritriacontanedioic acid, 17-(5,16-dioxo-18-phenyl-2,9,12,17-tetraoxa-6,15-diazaoctadec-1-yl)-17-hydroxy-12,22-dioxo-, bis(phenylmethyl) ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C55 H82 N6 O19
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

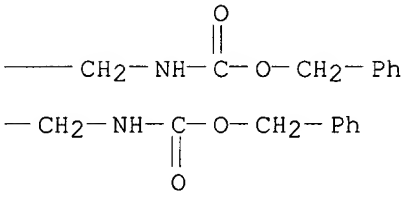
PAGE 1-A



PAGE 1-B



PAGE 1-C



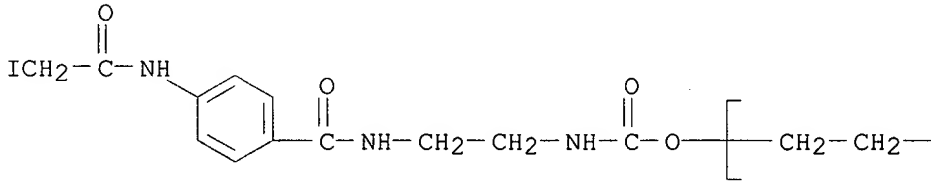
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

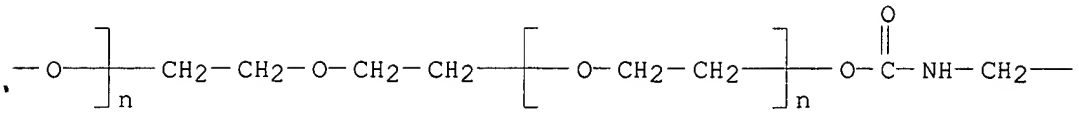
REFERENCE 1: 125:219609

L20 ANSWER 35 OF 54 REGISTRY COPYRIGHT 2002 ACS
RN **169744-31-4** REGISTRY
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-[[[2-[[4-[(iodoacetyl)amino]benzoyl]amino]ethyl]amino]carbonyl]oxy]- (9CI) (CA INDEX NAME)
MF (C2 H4 O)n (C2 H4 O)n C28 H34 I2 N6 O9
CI PMS
PCT Polyether
SR CA
LC STN Files: CA, CAPLUS

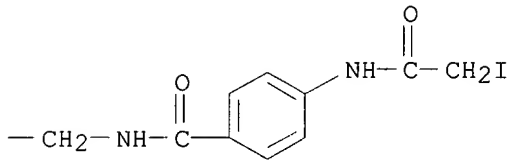
PAGE 1-A



PAGE 1-B



PAGE 1-C



1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:290272

L20 ANSWER 40 OF 54 REGISTRY COPYRIGHT 2002 ACS
RN **169744-16-5** REGISTRY
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-[[8-(2,13-dioxo-15-phenyl-6,9,14-trioxa-3,12-diazapentadec-1-yl)-4,7,10,21-tetraoxo-23-phenyl-14,17,22-trioxa-3,8,11,20-tetraazatricos-1-yl]oxy]- (9CI) (CA INDEX NAME)
MF (C2 H4 O)n (C2 H4 O)n C80 H118 N12 O27
CI PMS
PCT Polyether
SR CA
LC STN Files: CA, CAPLUS

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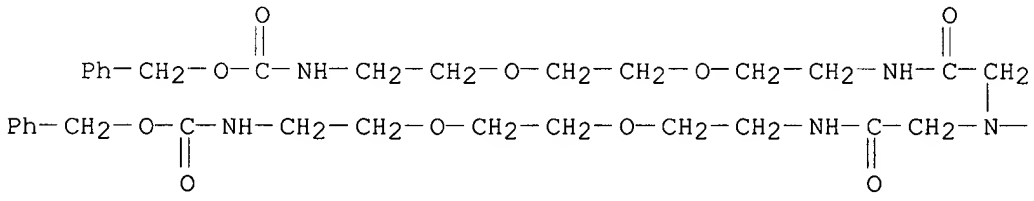
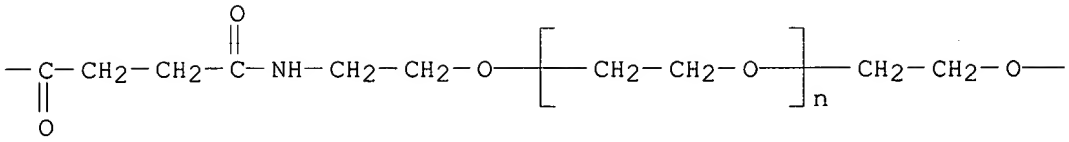
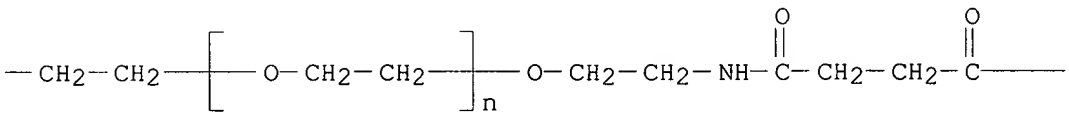


PAGE 1-B



PAGE 1-C



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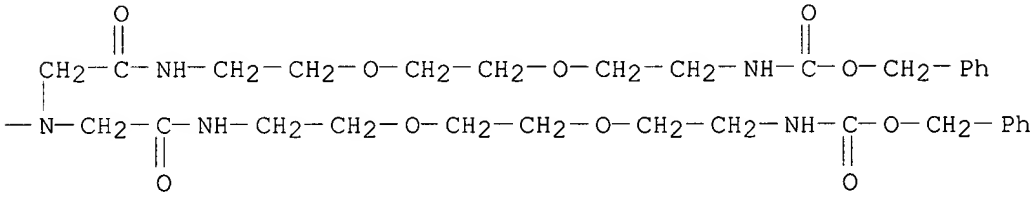

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:290272

L20 ANSWER 45 OF 54 REGISTRY COPYRIGHT 2002 ACS
RN **169744-05-2** REGISTRY
CN 5,8,20,23-Tetraoxa-2,11,14,17,26-pentaazaheptacosanedioic acid, 14-[4-(4-nitrophenoxy)-1,4-dioxobutyl]-12,16-dioxo-, bis(phenylmethyl) ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C42 H54 N6 O15
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

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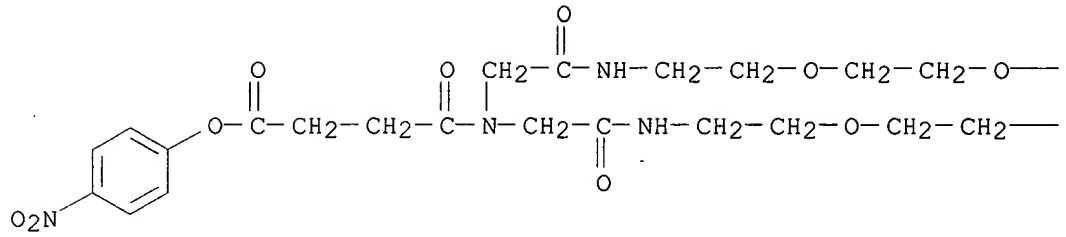

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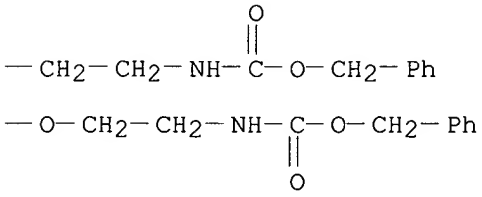


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

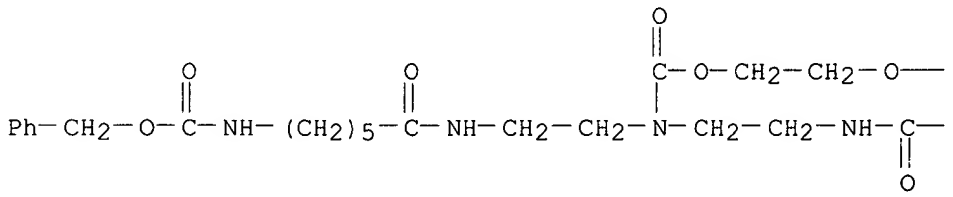
2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 125:219609

REFERENCE 2: 124:290272

L20 ANSWER 50 OF 54 REGISTRY COPYRIGHT 2002 ACS
RN **163778-63-0** REGISTRY
CN 14,17,20,23-Tetraoxa-2,9,12,25,28,35-hexaazahexacontanedioic acid, 8,13,24,29-tetraoxo-12,25-bis[2-[[1-oxo-6-[[(phenylmethoxy)carbonyl]amino] hexyl]amino]ethyl]-, bis(phenylmethyl) ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C72 H104 N10 O18
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

PAGE 1-A



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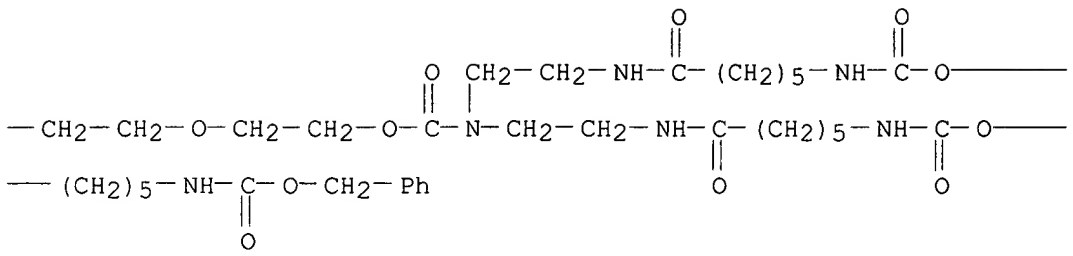

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—CH_2—Ph

——CH_2—Ph

4 REFERENCES IN FILE CA (1967 TO DATE)
4 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 128:61804

REFERENCE 2: 125:219609

REFERENCE 3: 124:290272

REFERENCE 4: 123:160405

L20 ANSWER 54 OF 54 REGISTRY COPYRIGHT 2002 ACS
RN **693-21-0** REGISTRY
CN Ethanol, 2,2'-oxybis-, dinitrate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Diethylene glycol, dinitrate (6CI, 7CI, 8CI)
OTHER NAMES:
CN 2,2'-Oxydiethanol dinitrate
CN DEGDN
CN Diglycol dinitrate
CN Dinitrodiglycol
CN Oxydiethylene nitrate
FS 3D CONCORD
DR 66492-77-1
MF C4 H8 N2 O7
CI COM
LC STN Files: ANABSTR, BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, DETHERM*, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, NIOSHTIC, RTECS*, SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

$O_2N-O-CH_2-CH_2-O-CH_2-CH_2-O-NO_2$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

310 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
312 REFERENCES IN FILE CAPLUS (1967 TO DATE)
45 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:222401

REFERENCE 2: 136:137127

REFERENCE 3: 136:113937

REFERENCE 4: 136:71964

REFERENCE 5: 136:56043

REFERENCE 6: 135:360078

REFERENCE 7: 135:359829

REFERENCE 8: 135:353916

REFERENCE 9: 135:346531

REFERENCE 10: 135:314607